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A List of the Land Birds of the Placerville--Lake Tahoe Stage Road.

CENTRAL SIERRA NEVADA MOUNTAINS, CAL.

BY CHESTER BARLOW

WITH SUPPLEMENTARY NOTES BY W. W. PRICE

THE region embraced in this title covers a magnificent stretch of forest in the central Sierra Nevada Mountains which, for natural beauty, is probably not surpassed elsewhere in the state. The general nature of the country is not of that extreme rugged type of which Yosemite Valley or the Kings River Canyon farther south in the mountain chain are examples, but attains its sublimity by gradual rises.

From the Sierran foothills gently-sloping ridges follow each other in billowy succession, becoming more abrupt as we ascend, until at Echo great mountain-sides of granite crop out, marking the most rugged part of the route. The Lake Tahoe stage road has wound its way over the divide from the east and down the American River since pioneer days, yet it seems to have been but little frequented by ornithologists, and perhaps more systematic work has been done along this route during the past ten years than at all previous times.

The distance from Placerville to the summit of the mountains is approximately 50 miles and an additional 12 miles along the east slope brings one to Tallac on the southerly shore of Lake Tahoe. The road for the most part is excellent during the early summer months and travel by team is an enjoyable means of progression if one has the time at his disposal. To those less favored with time I would recommend going by rail to Placerville, thence by stage (running semi-weekly) to such point along the road as may be desired. If a more varied itinerary is desired one may continue on to Tallac, cross Lake Tahoe by steamer and reach Truckee, whence the return home may be made by the Central Pacific Railroad.

DESCRIPTION OF ROUTE.

Along this route extending from the chaparral covered foothills to an approximate altitude of 8,000 feet the changes in bird life may be interestingly followed as we ascend. At Placerville, located in the lower ridges of the range (altitude 1800 ft.) only a sprinkling of mountain species occur through the summer, but as we ascend the generality of valley birds decreases with the increased altitude, although a few pre-eminently valley forms—notably *Spizella socialis arizonæ*, *Vireo gilvus*, *Pipilo maculatus megalonyx* and *Zamelodia melanocephala* extend to the summit,—an altitude of 8,000 feet. It is an interesting problem as to why these particular birds of the valley should seek such altitudes, while the great majority of austral species decline with the beginning of the coniferous forests.

From Placerville, about which forests of yellow pine begin, the timber growth is for the most part heavy and so continues to the summit. The principal other coniferous trees through the forests are sugar pine, fir, cedar, Douglas spruce, hemlock, yew, juniper and tamarack, according to altitude. The principal deciduous tree of the region is the black oak which seems to constitute a favorite feeding-ground for the smaller birds, and which extends up to 5500 feet but not higher.

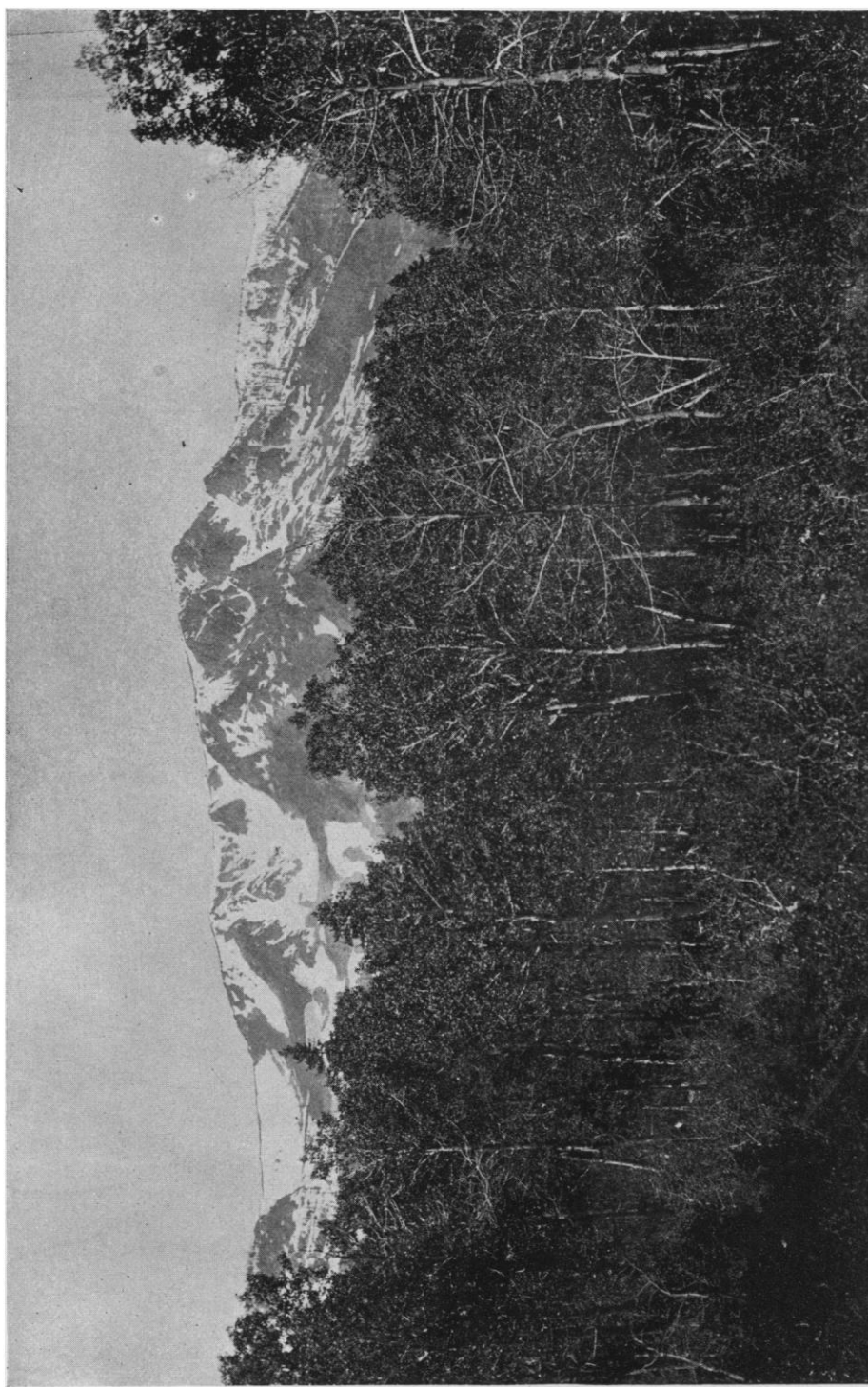


PHOTO BY C. BARLOW.

MT. TALLAC IN JUNE, FROM LITTLE TRUCKEE MEADOWS.

Along the route whole canyon-sides are frequently found grown up to manzanita and a tough, prickly brush, *Ceanothus cordulatus*, and the presence of these shrubs is usually indicative of a shallow, rocky soil. The deer-brush (*Ceanothus velutinus*), willowy in its nature and supporting fragrant white plumes, grows abundantly in places, and is replaced by willow thickets in the higher altitudes. This deer-brush is also a favorite feeding-ground of the numerous warblers and sparrows. Throughout the forest and in most open areas *Chamaebatia foliolosa*



PHOTO BY C. BARLOW.
TYPICAL PATCH OF CHAMAEBATIA FOLIOLOSA IN THE SIERRAS.

grows luxuriantly. It is a pungent, rose-like shrub, known locally as "mountain misery" and affords secure nesting sites for *Pipilo maculatus megalonyx*, *Junco hyemalis thurberi* and *Helminthophila rubricapilla gutturalis*.

The grade from Placerville is gradual and the road for the most part passes through a beautiful timber-growth and approaches the American River at River-ton, whence it follows the river or its tributaries almost to the summit. After crossing the river, exposures of granite along the road are numerous and great patches and hillsides of *Ceanothus cordulatus*,—a sharply-spiked shrub,—are much in evidence. This brush is an abomination to the collector, but frequently one may walk on top of the matted growth for quite a distance, but it is a thing to be avoided when possible.

The most alluring portion of the Placerville-Tahoe road is encountered a few miles before reaching the summit, for here the mountain meadows begin, traversed by numerous brooks and bordered by a luxuriant growth of tamarack saplings.

Here bird life was abundant; chickadees and nuthatches were at work on the numerous stubs; thrushes were making the deep woods ring with their choicest melodies; robins, sapsuckers, woodpeckers, white-crowned and thick-billed sparrows, warblers and kinglets were all intensely busy, while the gaudy forms of tanagers appeared everywhere through the forest.

Much has been told of the panorama which unfolds itself to the traveler on the summit, and the view is certainly an inspiring one. The east slope drops down abruptly and some miles to the east rises the second range of the Sierras, capped by numerous snow-covered peaks of 10,000 or more feet altitude. Between these two ranges lies Lake Valley, through which courses the Little Truckee River. To the north is seen Lake Tahoe, which is reached by a 12-mile drive from the summit. The crest of the Sierras followed in either direction presents almost every phase of sublime and rugged mountain scenery. The east slope of the ridge has been bereft of most of its timber growth and presents a desolate appearance when compared with the heavily-timbered west slope. In Lake Valley the country takes on a Nevadan phase, with its sage-brush and sandy soil, and some of the desert birds, such as *Spizella breweri* here finds a congenial home.

To the ornithologist who can afford time to desert the stage road for a few days,

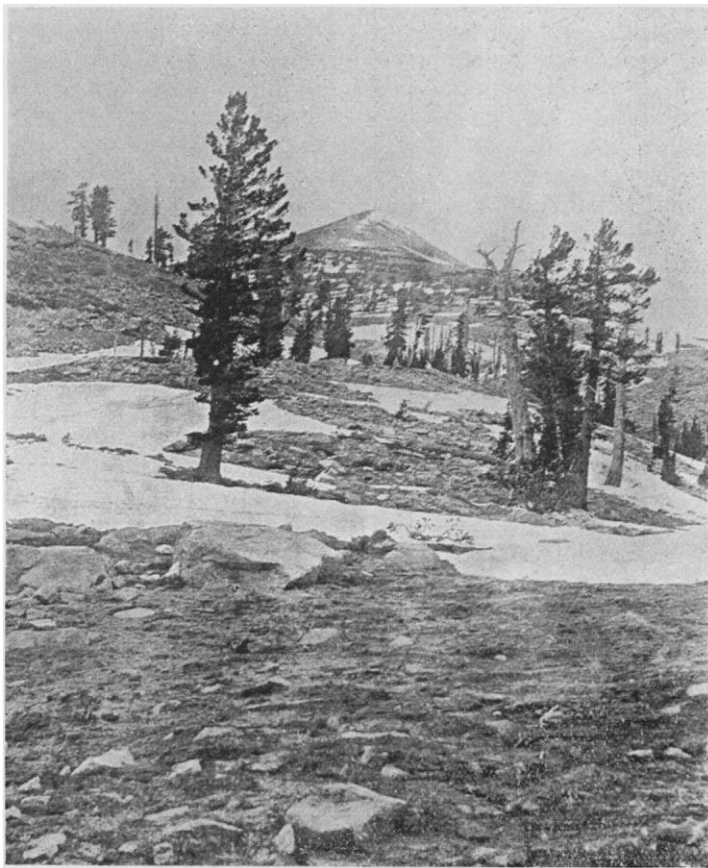


PHOTO BY C. BARLOW.
AT 9,000 FEET ALTITUDE ON PYRAMID PEAK.

I would suggest a delightful side-trip and a climb to the summit of Pyramid Peak. To accomplish this a side-road is followed at Georgetown Junction (between Slippery Ford and Echo) which leads to the summit of Peavine Ridge. This ridge runs easterly to the main mountain chain, and supports a fine growth of timber and many glacial meadows, in which birds abound. Several mountain dairies, deserted excepting during the summer months, may be relied upon to furnish shelter as the nights are much too cold for comfortable out-door sleeping. A party of four, including myself, camped at the western base of Pyramid Peak in 1900 and found the country all too interesting for the brief inspection we could give it. The ascent of Pyramid Peak (altitude 10,020 feet) is well worth the climb, and here the Clarke nutcracker (*Nucifraga columbiana*), the gray-crowned leucosticte (*Leucosticte tephrocotis*) and other species of the higher altitudes are met in their summer home. A panoramic view from the summit of Pyramid Peak will ever remain fresh in the writer's memory; far away to the south extended a solidly snow-capped ridge as far as the eye could see; close at hand great snow-banks reached down the steep eastern slope of Pyramid a thousand feet in unbroken whiteness, while far below beautiful mountain lakes and the dark-green forest combined to form a pleasing setting for these lofty mountain peaks.

GENERAL CONSIDERATION OF THE REGION AND ITS ZONES.

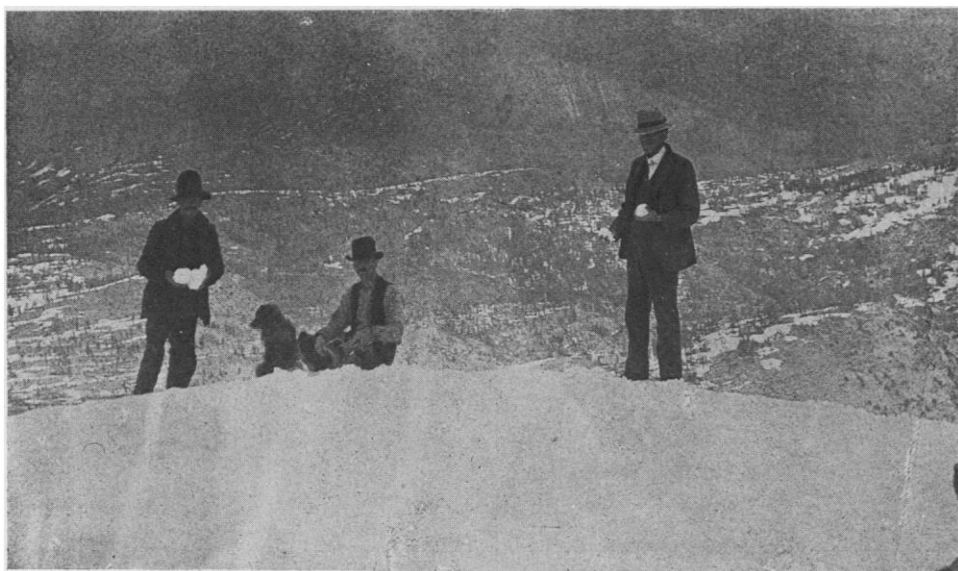
In traversing the region from Placerville to the summit one is impressed with the abundance of warblers and sparrows,—indeed, in numbers, they seem to out-rank all the other species combined. Scarcely a patch of deer-brush is passed that does not resound with the bold, liquid song of dozens of thick-billed sparrows, while each clearing has its quota of warblers. Each species of warbler seems to show a preference for some particular type of country. For instance, I have found Audubon warbler colonizing to quite an extent in areas covered by a dense growth of cedar saplings. The Calaveras and Tolmie warblers seem always to prefer the seclusion of brushy hillsides grown up to *Ceanothus velutinus* or *C. cordulatus*, while the black-throated gray warbler haunts the open ridges where the deer-brush has attained a height of eight or ten feet, affording a feeding-ground and frequently nesting sites. The hermit warbler shows a decided preference for the clear, tall timber, where the males, at least, usually keep well up in the trees.

The brushy hillsides afford seclusion for the numerous Fringillidæ, including, Passerella, Pipilo, Spizella, Zonotrichia and Oreospiza, and the entire region can conservatively claim a generous population of birds. In this respect I should judge it is more favored than either the country to the north or south, from which have come reports of the scarcity of mountain bird-life. Judging from a casual view of the country contiguous to the Central Pacific Railroad I should consider the Placerville-Tahoe region more conducive to bird life than the former, but this is merely a surmise on my part.

In so brief a consideration of the life zones of this region it is impossible to give more than a mere outline of the general limits of each zone without making an extended study of this feature, which the writer has not thus far done. Generally considered, the Upper Sonoran zone extends through the region of the digger pine and blue oak up to within a few miles of Placerville, and is marked by the presence of such birds as *Aphelocoma californica*, *Chamæa fasciata henshawii* and *Pica nuttalli*.

Placerville with its altitude of 1,800 feet may be considered the lower limit of the Transition zone, which extends up to about 5,000 feet on the stage road to the vicinity of Georgetown Junction where the black oak gives out. In this belt a

generous sprinkling of Lower Sonoran birds is found, including *Zamelodia melanocephala*, *Dendroica aestiva* and *Pipilo maculatus megalonyx*, while many birds of the Canadian zone extend down as low as 3,700 feet and are found breeding abundantly. *Sphyrapicus ruber*, *Dryobates villosus hyloscopus* and *Cyanocitta stelleri frontalis* may be considered typical of Transition, while the more typical forest trees of this belt are the yellow pine (*Pinus ponderosa*), sugar pine (*Pinus lambertiana*), incense cedar (*Libocedrus decurrens*) and Douglas spruce (*Pseudotsuga mucronata*).



ON THE SUMMIT OF PYRAMID PEAK.

The Canadian zone along the route may be included in the region lying between 5,000 feet altitude and the summit with its average elevation of 7,500 feet, irrespective of its numerous peaks. Here we find *Sphyrapicus thyroideus*, *Dendragapus obscurus fuliginosus* and *Coccothraustes vespertinus montanus*, and such trees as the lodgepole pine (*Pinus murrayana*), red fir (*Abies magnifica*), silver pine (*Pinus monticola*) and juniper (*Juniperus occidentalis*). The Hudsonian zone proper is encountered from about 8,000 feet upward on the slopes of the higher peaks, typical birds being *Nucifraga columbiana*, *Zonotrichia leucophrys*, *Spinus pinus* and *Regulus calendula*. This region is characterized by its hemlock forests. The Alpine zone on Pyramid and other peaks is a narrow belt above timber-line and the only bird observed was *Leucosticte tephrocotis*.

RECENT WORK IN THE REGION.

This brief survey is intended to cover only comparatively recent work in the region under consideration. Mr. W. W. Price made his first investigations in the summer of 1893 and has since devoted three months of each year to the exploration of the country contiguous to the stage road. His twenty-seven month's experience has made him familiar with even the more remote portions of the region, so that the addition of his notes to the present list insures its reasonable completeness.

During the summer of 1896 Messrs. Wilfred H. Osgood and R. H. Beck made an extended collecting trip from Placerville to Tallac and several particularly interesting sets of eggs (including the type sets of *Dendroica occidentalis* and *Cocco-*



PHOTO BY C. BARLOW.

COUNTRY ABOUT ECHO, LOOKING TOWARD THE SUMMIT.

thraustes vespertinus montanus) resulted from the trip. At that time I spent several days collecting with them at Fyffe.

In 1897 Mr. Beck made a hasty trip as far as the summit, while Henry W. Carriger and myself confined our ten days' operations to Fyffe, where L. E. Taylor acted as host. Mr. Taylor has collected a portion of each summer since 1896, and, owing to his hospitality, Fyffe has grown to be the Mecca of numerous ornithologists whose time precludes their going farther into the region. In 1898 Mr. Price went over the route as usual while I spent ten days with Mr. Taylor, at which time the second known set of hermit warbler was collected. In June, 1899, Messrs. Carriger, John M. Welch and myself spent a week at Fyffe engaged in general work. In 1900 Wm. L. Atkinson, Mr. Taylor and I collected at Fyffe and as far east as Pyramid Peak, which was climbed on June 10. During the past season (1901) Mr. Taylor and I traversed the entire length of the road to Tallac, devoting about two weeks to the trip. Mr. Taylor was later stationed at Meyer's Station and Glen Alpine Springs where he secured some interesting notes.

I am especially indebted to Mr. W. W. Price for his supplementary notes to my list as well as for cordial co-operation. He adds a material number of species to the list, a fact due doubtless to his extensive study of the region. Messrs. Wilfred H. Osgood, R. H. Beck and Forrest Hanford have kindly furnished me with data concerning the occurrence of various species in the region, while Mr. Chas. A. Swisler has favored me with a local list from Placerville where he has re-

sided for years. This has been the means of adding eight species to the present list.

I would take this opportunity of recommending ornithologists to Mr. L. H. Pratt of the Sugar Loaf Hotel at Slippery Ford, whose genial manner and general knowledge of the birds of his locality render him a model host of a model hostelry. I am grateful to Mr. L. E. Taylor for recent collections of birds in Lake Valley and at Glen Alpine Springs, as also for numerous courtesies extended on outings during the past six years, all of which have enabled me to better understand the region.

Thanks are due Mr. Walter K. Fisher for suggestions in outlining the life zones, and to Mr. Joseph Grinnell for his careful comparison of various specimens of birds, whose subspecific rank he determined.

DIVISION OF ROUTE INTO SECTIONS, WITH ALTITUDES.

For convenience, and to divide the stage road into sections, I have prepared a list of the stage stations with their elevations, and the distance of each from Placerville. Such stations as receive and dispatch mail I have marked "P. O." It is hoped that by consulting this schedule and studying the zone in which each station is located, that ornithologists desiring to travel through the region may be enabled to map their route with a reasonable knowledge of the birds to be met with in each locality. The stations are given in their order from Placerville and in the following list the station nearest to the point of capture has been used to designate the locality.

- PLACERVILLE, altitude 1800 feet
- SMITH'S FLAT (P. O.) Three miles from Placerville. Altitude 2200 feet.
- SIX-MILE HOUSE, Six miles from Placerville, Altitude 3000 feet.
- FYFFE (P. O.) 12 miles from Placerville. Altitude 3700 feet.
- PACIFIC (P. O.) 17 miles from Placerville. Altitude 3400 feet.
- RIVERTON (River crossing). 22 miles from Placerville. Altitude, 3300 feet.
- SLIPPERY FORD (P. O.) Known also as Sugar Loaf. 33 miles from Placerville. Altitude 4000 feet.
- ECHO (P. O.) 44 miles from Placerville. Altitude 5700 feet.
- PHILLIPS STATION. 48 miles from Placerville. Altitude 6900 feet.
- SUMMIT. 50 miles from Placerville. Altitude 7600 feet.
- MEYERS STATION. 55 miles from Placerville. Altitude 6400 feet.
- TALLAC (P. O.) 62 miles from Placerville. Altitude 6200 feet.

In conclusion I would mention that the inspiration of this list has been a desire to bring this region to the better knowledge of ornithologists, especially those Californians who enjoy ornithological outings to new fields. In presenting the list I am aware that it is probably far from complete, especially in austral types. The country about Smith's Flat partakes of the nature of the lower foothills, there being numerous small valleys timbered with white oak, and as no systematic work has been done here it is reasonable to suppose that a number of valley species occur which have not been recorded.

The present list, with several exceptions, deals largely with the birds which summer in the Sierras. This leaves unrecorded many of the winter visitants which must frequent the region, and also such migrants as travel through the pass each spring and fall. It is hoped to record these species in an additional list at some future time, since Mr. L. E. Taylor of Fyffe has consented to watch the bird movements during the present fall and winter. No attempt has been made to list the water

birds, although a very interesting list could doubtless be gathered from the various mountain lakes during the fall, winter and spring.

Finally, the present paper is principally a compilation of nesting notes which have been gleaned from several years' outings in this portion of the Sierras. It has been prompted by a desire to draw more of the ornithologists of California to this great natural aviary, not necessarily to engage in active collecting, but to learn of and appreciate its varied and interesting bird life.

Mr. Lyman Belding, whose long and continuous observations in the Sierra Nevada Mountains have given him a rare knowledge of its fauna, and whose writings breathe always of the pine-woods, has advised every bird lover to visit this great mountain region if he has not already done so. I can scarcely hope to add force to his suggestion. Here a variety of natural features combine to form what one sojourner has termed "the grandest woodland in all the world." Here, toward evening, a flood of melody leads us to the shady haunts of the Big Tree thrush on the border of some mountain meadow; here innumerable bird songs, the rush of the mountain torrent, the soft cadence of the pines and above all the pure mountain air impress us profoundly with the wild beauty and perfection of Nature's handiwork.

LIST OF SPECIES.

Oreortyx pictus plumiferus. Plumed Quail. This splendid quail is found commonly from about 2000 feet upward to the summit and is abundant in Lake Valley. Its shrill call-note can be heard almost anywhere through the woods, and particularly on the hillsides; the note is quite easily imitated and if persisted in will draw the bird close to the observer. At Fyffe the plumed quail begins nesting the last of May or early in June, and all nests observed were built in the "mountain misery" which here attains a height of from eight to ten inches. On June 7, 1899 Mr. Carriger and I collected two sets of eggs at Fyffe. The first nest was built at the base of a large cedar tree, being well concealed by *Chamæbatia* and contained ten eggs, incubation about one-half advanced. Although disturbed repeatedly, the female bird returned to the nest with great persistence. The nest was photographed and its location is shown in the accompanying illustration. On the same day while walking through a patch of "mountain misery" a quail flushed from a set of eleven eggs. This was subsequently collected with the nest, which was composed of the leaves and stems of *Chamæbatia* and a lining of feathers. The eggs were about one-half incubated and formed two layers in the nest when collected. On June 10 1899 Mr. Carriger collected a nest and ten eggs near the Fourteen-mile House, incubation well along. Mr. L. E. Taylor discovered a nest at about 5,000 feet altitude on June 16, built on a shelf of rock near the road. A cavity had been hollowed out in the sand and lined with leaves; this held six fresh eggs. I should advise collecting nests with sets when possible, for they add immensely to the interest and beauty of the eggs. The plumed quail were observed coming out into the road about dusk.

[On Mt. Tallac and on the higher slopes of Pyramid Peak, young just hatched have been observed as late as the 15th of August. By the first of September the quail are restless and are beginning their peculiar vertical migration to the west slope of the mountains. Sometimes four to six adults with their young will form a covey of ten to thirty individuals and pursue their way, almost wholly "on foot" along the ridges to a more congenial winter climate. By Oct. 1 the quail have almost abandoned the elevations above 5000 feet. In the fall the woodland is full of the disconsolate "peeps" and whistling call-notes of the young who have



PHOTO BY C. BARLOW.
NEST AND EGGS OF PLUMED QUAIL IN "MOUNTAIN MISERY."

strayed from their coveys. In the early spring and summer the quail begin their upward journey, not in flocks, but usually in pairs or singly, ascending as fast as the snow melts from the ground. At this mating season their rich clear whistle is continually heard, though at no time during the year are they quiet. I observed several pair near Slippery Ford on the 20th of April, 1897, though snow still covered the ground in many places.—W. W. P.]

Lophortyx californicus vallicolus. Valley Quail. Observed in the region of Smith Flat and probably extends up as far as Fyffe. Not nearly as common as the preceding species.

[Common about the Six-mile House and as far as the Ten-mile House. Young, a few days old, were observed at the Six-mile House June 26, 1896.—W. W. P.]

Dendragapus obscurus fuliginosus. Sooty Grouse. Occurs from the Fourteen-mile House to the summit, but apparently not common at any point. On Plum Creek Mr. Taylor and I heard them "drumming" in the tall spruce on the hillsides. On June 14, 1901 we had just crossed the summit and made a turn in the road when a sooty grouse was observed crouched about 50 feet away against the bank. One shot from the auxiliary barrel did not disturb it; the second caused it to fly down the hill into a tall tamarack, where it was subsequently found sitting in plain view on a bare limb, from which it was collected.

[I have noted this species from the Twelve-mile House to 9500 feet on Pyramid Peak and Mt. Tallac. Unlike the plumed quail the grouse does not migrate to the lower levels, but remains regardless of the depth of snow, feeding on the conifers. April 21, 1897, while passing on snowshoes on the divide above Slippery Ford, I surprised a large flock where the snow was fully 15 feet on the level. The crop of a bird shot was completely filled with the young leaves of the white fir. About Glen Alpine, the first young were observed as early as the middle of June. On June 7, 1900 a set of seven eggs well advanced in incubation was found by one of the employees at Glen Alpine. It was placed in a hole under a fallen tree, among ferns. All through the setting time, and often much later, the males are heard drumming. Later they go to the most elevated regions, spending most of their time in the pines and hemlocks, alighting on the ground only long enough to feed on the blossoms of lupine, columbine, and Indian paint brush (*Castilleja*), together with a small amount of insect food. When the young are hatched the mother grouse is notably fearless in decoying the intruder.—W. W. P.]

Columba fasciata. Band-tailed Pigeon. On June 6, 1899 Mr. Welch and I observed a flock of these pigeons in the pines near Fyffe. This is my only record of their occurrence.

[Common at many places in the mountains, to at least 6500 feet, their rarity or abundance depending on the food supply, which is chiefly the berries of the manzanita and scrub oak. I observed a single individual at Glen Alpine, August 15, 1900.—W. W. P.]

Zenaidura macroura. Mourning Dove. This species is abundant on the plains and was observed commonly about Smith Flat. It is doubtful if it is a common resident of the pine region. On June 11, 1898 I found a nest containing two fresh eggs, placed in a crotch of a black oak eight feet from the ground. The nest was composed wholly of pine needles laid together in a depression and contained two fresh eggs.

[Common about Pacific House in freshly harvested grain fields June 28, 1897 and a single pair was observed at Slippery Ford a few days later. They are rare about Lake Tahoe, but several were shot at the north end of the lake, in dry meadows Aug. 1, 1900.—W. W. P.]

Gymnogyps californianus. California Vulture. This species is recorded on the authority of Mr. Jesse Millikan who mentions the capture of a specimen on the South Fork of the American River in the fall of 1854. (*cf.* THE CONDOR II, p 12.)

Cathartes aura. Turkey Vulture. Observed occasionally circling about the canyons at Fyffe, especially at a spot where a forest fire had destroyed a large growth of timber.

Accipiter velox. Sharp-shinned Hawk. Observed several times near Fyffe flying about in and above the fir timber, where it undoubtedly nests.

[Common about Pyramid Peak, especially in the late summer when a migration seems to be in progress. Have seen it frequently each year usually in dense fir timber, but have never found its nest or collected the young.—W. W. P.]

Accipiter cooperi. Cooper Hawk. On June 10, 1899 Mr. Carriger and I observed a hawk which we identified as this species eating a bird in a grove of pines five miles from Placerville.

[In the summer of 1897, about July 10, on Silver Creek at the base of Pyramid Peak I collected four young just able to fly. The nest was not found, but was undoubtedly in the dense fir timber in the immediate vicinity. At Glen Alpine this species is seen almost any day about Lily Lake, where dense thickets of fir and aspen make a favorite retreat.—W. W. P.]

Accipiter atricapillus striatulus. Western Goshawk.

[A pair of these birds had their nest somewhere in the dense timber on Silver Creek on the west of Pyramid Peak, in June and July 1897. I saw the pair several times near enough for positive identification, but they were always extremely wary, and when disturbed from their retreat would circle about with wild cries. In July 1898 presumably the same pair were observed, and although we searched the woods diligently could not find the nest or the young. I am reasonably positive I saw a goshawk in the heavy pine and aspen timber at Glen Alpine, July 3, 1901.—W. W. P.]

Buteo borealis calurus. Western Redtail. This species was noted occasionally at Fyffe and once near Georgetown Junction, but will probably be found to be fairly common upon investigation. One bird was seen perched on a tall burnt pine in a district which had previously been swept by a forest fire, but it was very wary, changing its position quickly when one approached. The other was also in an open district and allowed me to approach to the base of the giant pine on which it had settled. This species doubtless nests in the large conifers, most of which would offer perfect security from human molestation.

[Common everywhere in the woods. I have noted it almost every day about my camps on Silver Creek and on Mt. Tallac. Several specimens have been shot each season.—W. W. P.]

Aquila chrysaetos. Golden Eagle. We observed a single bird flying about the summit of Pyramid Peak in 1900. Mr. Pratt of the Sugar Loaf Hotel showed me a pair of wings of this species which he had saved from a bird shot in the fall of 1900. It is said to nest regularly in the high, rugged cliffs at Echo.

[A pair of these birds have their nest on the craggy western face of Pyramid Peak. The nest is on a ledge about 500 feet from the summit and inaccessible. On the night of July 27, 1899, which I spent on the summit, a pair of eagles flew close to our campfire as if attracted by the unusual sight. They passed several times within a few feet of us. Eagles are seen almost every day at Glen Alpine, and they nest both on the cliff in the canyon and on the cliffs on Mt. Tallac.—W. W. P.]

Falco sparverius deserticolus. Desert Sparrow Hawk. Met with quite frequently in the higher pine forests. One was shot at Slippery Ford on June 9 from the top of a tall fir tree. The bird lodged in the tree and necessitated a hard climb to secure it. This specimen, a male, was of a distinctly lighter form than the coast birds and was pronounced a good example of *deserticolus* by Mr. Wilfred H. Osgood who kindly compared it with specimens in the Biological Survey. The species was observed at 6,000 feet altitude on Peavine ridge.

[Collected on the upper slopes of both Pyramid Peak and Mt. Tallac. In July 5, 1897, a nest was found in a hole in a blasted pine at 9000 feet on the south slope of Pyramid Peak. From the actions of the birds the nest probably contained young.—W. W. P.]

Pandion haliaëtus carolinensis. American Osprey.

[Observed in late June 1896 at Riverton, where a single individual was seen flying up the American River. It was so close to us that identity is practically positive. No other hawk has the large amount of white in its plumage. One of the ditch tenders told me that a "fish hawk" came up the river frequently. On April 19 1897 near Slippery Ford, I observed this hawk a second time. It was perched on a tree overhanging the river. On my approach it flew to another resting-place.—W. W. P.]

Nyctala acadica. Saw-whet Owl. [One was shot by Mr. A. S. Bunnell at my camp at Glen Alpine in July 1898. It was the only one seen.—W. W. P.]

Bubo virginianus saturatus. Dusky Horned Owl. One shot in July or August, 1897 by Mr. L. E. Taylor at Fyffe was probably a resident bird and was referred to this race by Mr. L. M. Loomis who kindly examined the specimen for me. The skin is now in the Academy collection.

[I have heard the "hoot" of the horned owl several times at high elevations on Mt. Tallac, but have never succeeded in collecting the bird.—W. W. P.]

Speotyto cunicularia hypogæa. Burrowing Owl. Recorded from near Latrobe by Mr. C. A. Swisler. Nests commonly on the plains farther west.

Glaucidium gnoma. Pygmy Owl. [Three were shot at Glen Alpine, August 10, 1900. They were observed flying in the day time. One was an adult female, the other two being young of the year.—W. W. P.]

Ceryle alcyon. Belted Kingfisher. Occurs throughout the length of the American River. Mr. Taylor sent me a male, collected at Glen Alpine Springs on Sept. 21, 1901.

Dryobates villosus hyloscopus. Cabanis Woodpecker. A common species at Fyffe where it nests well up in the pines. Observed also at Slippery Ford on June 13, 1901. Mr. Taylor secured two specimens at Fallen Leaf Lake on Sept. 2, 1901.

Dryobates pubescens gairdneri. Gairdner Woodpecker. On June 7, 1899 Mr. Carriger observed a single bird of this species in the burnt district near Fyffe.

Xenopicus albolarvatus. White-headed Woodpecker. A common species at Fyffe and apparently up to the summit, usually quiet in its habits. The favorite nesting sites are low stubs of burnt trees, in which the newly-drilled holes show conspicuously. June 15, 1897 a nest was found twelve feet up in a burnt stub containing young about to fly. The young were of a dull yellowish plumage on the white parts but otherwise showing the markings of the adult birds. In 1898 at Fyffe a pair of white-headed woodpeckers had a nest containing young in a stub near the house. The nest was six feet from the ground and as the young grew larger one could almost always be observed at the entrance hole. In the top of the same stub a pair of western bluebirds had a nest and they improved every

opportunity to attack the female woodpecker when she came to feed her young. However both species reared their young successfully. The white-headed woodpecker is one of the quaintest-looking and most interesting birds of the region.

[Common in Lake Valley and about Fallen Leaf Lake, as well as everywhere in the range of the yellow pine. I have never noted it above 7000 feet.—W. W. P.]

Picoides arcticus. Alpine Three-toed Woodpecker. [A pair was collected on Silver Creek, west of Pyramid Peak, in August 1896. The same month a young bird was shot at 9,000 feet on Pyramid Peak. In July 1898 two young were shot at the head of Glen Alpine gorge. They were feeding in a grove of alpine hemlock.—W. W. P.]

Sphyrapicus ruber. Red-breasted Sapsucker. A common Transition species. On June 11, 1897 Mr. Carriger and I found a nest 40 feet up in a dead, barkless pine in a ravine at Fyffe. It contained young whose "screeching" notes could be heard whenever the parents alighted on the stub. The old birds were not annoyed by our presence, going promptly to the cavity with their supply of food. I have observed the species up as far as Echo.

Sphyrapicus thyroideus. Williamson Sapsucker. On June 9, 1900 Mr. Atkinson and I observed a female drilling its nesting-hole in a red fir on the meadow at the base of Pyramid Peak. I shot a female at 7,200 feet altitude on June 14, 1901 and do not think it is found below Echo. Mr. Taylor collected an immature female at Cascade Lake Aug. 8.

Ceophlæus pileatus abieticola. Northern Pileated Woodpecker. Not uncommon. I observed several in the tall dead pines but all were extremely wary. When I first heard it drumming at Fyffe early one morning its "tapping" was a revelation and could be heard a great distance in the woods. Mr. Beck collected a female at Fyffe and Mr. Price's assistant found a nest containing young on June 13, 1897. Mr. Taylor collected a male at Gilmore Springs near Tallac Sept. 2, 1901.

Melanerpes formicivorus bairdi. California Woodpecker. Recorded from near Placerville by Mr. C. A. Swisler.

Melanerpes torquatus. Lewis Woodpecker. Personally I have not observed this woodpecker on the west slope of the range, though it would be expected to occur. Mr. Beck found it common and breeding about Bijou on Lake Tahoe in the summer of 1896, and Mr. Taylor collected two immature females at Grass Lake near Glen Alpine on Sept. 20, 1901.

Colaptes cafer collaris. Red-shafted Flicker. Common in the wooded districts from the lower foot hills up to at least 9,000 feet. One specimen which I shot was smeared with pitch from the pines and of a dark color, due doubtless to its contact with burnt trees. While climbing Pyramid Peak on June 10, 1900 Mr. Atkinson found a nest of this flicker in a stub of a white-bark pine at about 9,200 feet altitude. The nest was ten feet up and contained six eggs, almost fresh. The parent bird was extremely wild and did not seem to venture near the stub during our stay on the peak.

Phalænoptilus nuttalli californicus. Dusky Poor-will. One heard at Fyffe on the night of June 19, 1896. We were camped on the edge of a clearing and had just retired, the moon brilliantly lighting the open space, when the call of a poor-will came to us from across the clearing in the shadow. It was repeated several times when the bird departed. Mr. Taylor collected a female at Meyer's Station in Lake Valley on Sept. 2, 1901.

Chordeiles virginianus. Nighthawk. Not observed on the west slope from

Placerville to the summit, owing probably to a lack of suitable breeding grounds. In Lake Valley at Meyer's Station it was common, doubtless nesting in the sage brush which there abounds. Mr. Taylor writes me that on the evening of August 11 he noted flocks of this species congregated in and about the willow sand that they were thereafter uncommon indicating that the principal migration took place on that date. A female collected by Mr. Taylor at Meyer's Station on Sept. 4 shows very dark coloration, as do other specimens from the Sierras, and is evidently not referable to *Chordeiles v. henryi*. It seems probable that the Sierra night-hawk may prove separable into a new race but in the absence of definite data the present notes may be considered to apply to *Chordeiles virginianus*.

[Common in suitable places to the summit of Pyramid Peak and Mt. Tallac. Very abundant on the lakes about Glen Alpine, where they can be seen at all times. In late July a nest with two eggs was found on bare rock near the shore of Suzy Lake. The night I spent on Pyramid Peak, nighthawks were continually flying about the campfire. In the fall they congregate in large flocks preparatory to the migration.—W. W. P.]

Aeronautes melanoleucus. White-throated Swift. On June 7, 1899 Mr. Carriger and I observed a swift circling high in air over one of the canyons at Fyffe and referred it to this species.

Trochilus alexandri. Black-chinned Hummingbird. On July 15, 1900 Mr. L. E. Taylor found a hummingbird's nest at Fyffe containing two eggs and collected the female parent. The skin was subsequently almost destroyed but from the fragments Mr. C. W. Richmond of the National Museum referred it to this species. The nest was placed five feet from the ground in a pear tree in the orchard and was composed of light colored plant material and mullein down.

Calypte anna. Anna Hummingbird.

[A single specimen, a female, was shot on Silver Creek near Pyramid Peak, in July 1896. It was evidently a straggler.—W. W. P.]

Selasphorus rufus. Rufous Hummingbird. [Abundant in the Sierras above 6000 feet. Noted every day at my camp on Silver Creek, where four or five nests were taken usually placed on small limbs of the tamarack pine. One was on a twig of *Lonicera* a few inches above running water. This nest was first observed July 1, 1895, when it contained one egg. This hummingbird was often noted at Glen Alpine, where it fed largely on the nectar of the California fuchsia.—W. W. P.]

Stellula calliope. Calliope Hummingbird. Mr. Beck collected several of these small hummingbirds four miles west of Slippery Ford, while they were flying about blossoming shrubs. I saw one at Fyffe early on the morning of June 9, 1897 flying along a ditch and following its curves with precision. During the past summer Mr. Taylor and I observed a small hummingbird at Slippery Ford and also near the summit, but no specimens were secured to identify it as of this species.

Tyrannus verticalis. Arkansas Kingbird. On June 10, 1899 Mr. Carriger observed a single example of this flycatcher in the orchard at Fyffe. A pair were nesting half a mile east of Smith Flat in a poplar tree on June 11, 1899.

Myiarchus cinerascens. Ash-throated Flycatcher. Some distance below Fyffe on June 8, 1897 Mr. Carriger and I observed a pair flying about a tall stub where they no doubt had a nest. It is probable that this species does not occur far above 3,000 feet.

Sayornis nigricans semiatra. Black Phoebe. On June 7, 1896 I found a nest of this species between Folsom and El Dorado containing young about to fly. This is my only record though the species probably occurs as far up as Placerville.

Contopus borealis. Olive-sided Flycatcher. A common species all through the Sierras, its shrill notes from the tall, dead trees marking its presence everywhere. The birds are very cautious after nesting has commenced and its requires vigilance to detect either bird at the nest. The male will sit in one place seldom varying its monotonous note for even an hour at a time, if it finds it is observed, and now and then a low chuckle from the female on her nest is the only response,



PHOTOGRAPHING AN OLIVE-SIDED FLYCATCHER'S NEST 70 FEET UP IN SILVER FIR.

but too ventriloquistic to expose the location of the nest. The nests are completed at Fyffe by June 1 and contain fresh eggs until about the middle of June. I collected a nest on June 10 1897 from a fir tree, the nest being 72 feet from the ground on a horizontal limb. The nest was composed of rootlets with which was mixed a quantity of a bright yellow dry moss (*Evernia vulpina*) so common in the Sierras, and contained four eggs, one third incubated. This nest afforded an opportunity to attempt aerial photography with fair results. The birds were very pugnacious while I was in the tree, flying about with a lively snapping of beaks. June 14, 1897 Mr. Carriger found a nest in a Douglas spruce 72 feet up. This contained four eggs, but owing to the droop of the limb and the distance of the nest from the trunk of the tree it could not be reached. A scoop was tried but efforts to secure the eggs proved unsuccessful. The average heights of nests of

this species seems to be from 60 to 70 feet, firs being the favorite tree. The eggs are among the handsomest of our flycatchers, each differing more or less in the intensity and style of its markings. A favorite perch of the male bird is the pinnacle of the tallest dead tree in the vicinity, where, owing to its height, the bird is scarcely perceptible at times.

[Common on Pyramid Peak and Mt. Tallac to at least 9000 feet.—W. W. P.]

Contopus richardsoni. Western Wood Pewee. A common summer resident of the entire region. It was usually observed well up in the trees its notes being uttered with regularity in the intervals between which it would dart off after some passing insect. The nests are built in perfect mimicry with their surround-



WESTERN WOOD PEWEE'S NEST ON CEDAR LIMB.

PHOTO BY C. BARLOW.

ings and are usually hard to discover, except by watching the birds. June 9, 1897 I almost bumped into a nest built on a cedar limb six feet from the ground, which contained three eggs, the usual complement. The situation of the nest is shown in the accompanying half-tone. On June 14 a second nest was found 15 feet upon a small projecting limb of a burnt tree, and held four small young. The nest seemed conspicuous when its location was known. The wood pewee nests earlier at Fyffe than it does farther up, and the two nests mentioned were there observed. On June 13, 1901 a nest and three fresh eggs were taken at Slippery Ford, the nest being saddled onto a horizontal black oak limb, 40 feet up. The wood pewee and olive-sided flycatcher occupy very similar territory throughout this region.

Empidonax difficilis. Western Flycatcher. Not uncommon in the beds of the deep canyons, where it nests along the stream in up-turned logs and similar sites. One nest taken by Mr. Taylor at Fyffe on May 27, 1897 contained four eggs, about one-third incubated and was placed in the end of a moss-grown, up-turned log. On June 16, 1898 we found a nest built in a cavity of a burnt-out spruce in Weber canyon.

Empidonax hammondi. Hammond Flycatcher. This little flycatcher is found in the open country where brush is plentiful, though usually near timber. Its peculiar weak note calls one's attention to its presence. In 1897 Mr. Carriger found two nests of this species at Fyffe, built not more than 100 feet apart. The first was found on June 15, and was built on a horizontal limb of a dogwood tree sixteen feet up. It held two eggs, in which incubation was begun. The female parent was collected and determined later by Dr. C. W. Richmond. The second nest was built in an upright fork of a manzanita bush four feet from the ground and held four eggs. Thus the nesting sites seem to vary, and the general actions of the birds very much resemble those of *E. trailli*.

[Late in the summer the young of this flycatcher are common in the tamarack thickets along Silver Creek and on the slopes of Pyramid Peak. They are usually associated with the young of two or three warblers and Cassin vireo. I have noted this congregation each season previous to the migration. The large scattering flocks are often miles in extent, and probably contain thousands of birds. —W. W. P.]

Empidonax wrighti. Wright Flycatcher. One specimen shot by me from a black oak in a clearing on June 20, 1896. Its presence at Fyffe at this date may be regarded as evidence of its nesting there. In the undergrowth of deer brush, interspersed with black oaks, at the Fourteen mile house a small *Empidonax* was very common, but as no specimens were secured I do not know whether the birds were referable to this or to the preceding species.

Otocoris alpestris leucolæma. Pallid Horned Lark. On October 6, 1901, Mr. L. E. Taylor collected a female horned lark at Meyer's Station in Lake Valley from a group of three birds. October 9 near Lake of the Woods at 8,900 feet altitude Mr. Taylor writes that he saw a flock of several hundred horned larks and secured one by a long shot. Mr. Joseph Grinnell has kindly compared the two specimens with his series and pronounces them referable to *leucolæma*, mentioning at the same time that so far as he is aware this constitutes the first record of this subspecies for California.

Otocoris alpestris rubæa. Ruddy Horned Lark. Observed commonly on the plains of the Sacramento valley and up as far as Latrobe. It probably does not occur as far up as Placerville but its occurrence at Latrobe seems to justify giving it a place in the list.

Pica pica hudsonica. American Magpie. Reported as common about Meyer's Station during the fall of 1901. Mr. Taylor sent me a male bird which was caught in a coyote trap on Sept 22. Observed by various other workers about Lake Tahoe.

Pica nuttalli. Yellow-billed Magpie. Noted from the train a short distance west of Latrobe. Probably occurs farther up in the blue oak belt.

Cyanocitta stelleri frontalis. Blue-fronted Jay. A common species, its hoarse cries resounding through all the canyons. It seems to keep close to the timber. At Fyffe on June 16, 1898 I found young just out of the nest, presenting a ludicrous, bob-tailed appearance. A number of vireos were observed pursuing several marauding jays, the sharp, rasping notes of the former drawing attention to

the chase. On the Forni meadow at the base of Pyramid Peak a nest of this species was found on June 9, 1900 containing four incubated eggs. The nest was near the top of a 12-foot tamarack and was largely composed of mud and manure, but a few sticks being used as a foundation. Mr. Atkinson found a nest well up in a red fir tree on the same date, containing small young. At Fyffe on June 7, 1901 I found a nest in the extreme top of a 30-foot yellow pine, conspicuously situated as are most of the robins' nests. It proved to be a jay's nest and held four fully-feathered vociferous young.

Aphelocoma californica. California Jay. A common species of the chaparral belt and observed on the hillside about four miles east of Placerville.

Corvus americanus. American Crow. Observed in the region frequented by the yellow-billed magpie near Latrobe.

Nucifraga columbiana. Clarke Nutcracker. A small colony was found in a grove of hemlocks at 8,500 feet altitude on the southeast slope of Pyramid Peak on June 9, 1900. The birds kept well out of the range, cawing contentedly, while the cold wind of the peak did not conduce to following them up. Mr. Pratt, the genial proprietor of Sugar Loaf Hotel (altitude about 4,000 feet) tells me that during the winter the Clarke crows appear quite often about the hotel, readily coming within in a few feet of him to secure food. He states that this species and the blue-fronted jays help immensely to liven the long winter days, when the heavy snowfall prevents communication with the outside world.

[Common almost everywhere above 8000 feet. They proved exceedingly annoying on Mt. Tallac, where they continually pilfered my traps set for small mammals. I caught several in July 1892 in steel traps baited with meat.—W. W. P.]

Xanthocephalus xanthocephalus. Yellow-headed Blackbird. Observed by Mr. Beck nesting in the marsh near Bijou on the shore of Lake Tahoe in June 1896.

[A flock of six or eight were observed in a meadow in June 1896 a few miles east of Placerville, and several were collected. It is hardly possible they were breeding there, but rather were resting from their flight over the mountains.—W. W. P.]

Agelaius gubernator californicus. Bicolored Blackbird. I was told it nested in a meadow at Sly Park, a short distance south of the 14-mile house. Reported as nesting commonly on the southerly shore of Lake Tahoe. Mr. Pratt of Slippery Ford told me that the various blackbirds migrate down the American River canyon in the fall, often in large numbers.

Agelaius tricolor. Tricolored Blackbird. Observed nesting on the shores of Lake Tahoe by Mr. Beck, who collected a set of five eggs on June 12, 1896.

Sturnella magna neglecta. Western Meadowlark. Mr. Forrest S. Hanford observed five in a meadow near Smith Flat on May 1, 1901. Mr. Taylor sent me a specimen shot at Meyer's Station in Lake Valley on Sept. 30, 1901, at which date he stated they were going about in flocks. Recorded by Mr. C. A. Swisler at Placerville.

[Observed in 1896 at Placerville, Six-mile House and Pacific House. I have never seen this species in any of the meadows above 5000 feet.—W. W. P.]

Icterus bullocki. Bullock Oriole. Three individuals were noted in Placerville on May 1, 1901 by Forrest S. Hanford, while on his journey from Placerville to Carson City. Recorded by Mr. Chas. A. Swisler at Placerville.

Scolecophagus cyanocephalus. Brewer Blackbird. A flock was observed at

the Five-mile House where a large cattle corral affords typical surroundings. Observed in Lake Valley during June 1901.

[Common about Wright's Lakes near Pyramid Peak, 7000 feet, where they nest in pines along the lake shore. Observed April 19, 1897 at Slippery Ford, where they had evidently already paired.—W. W. P.]

Coccothraustes vespertinus montanus. Western Evening Grosbeak. A bird of apparently local distribution in the mountains, nowhere being abundant. Mr. Beck shot several at Fyffe June 10, 1896, but these were probably belated migrants passing up to higher altitudes. The first authentic nest and eggs of this species was secured by Mr. Beck in June 1896 at 5,000 feet elevation on a mountain-side. The nest was built in a black oak and was fairly conspicuous. It was composed of small sticks substantially lined with rootlets and contained four eggs. These resembled eggs of the eastern pine grosbeak more closely than those of any other species. For a complete account of the taking of this set see *Nidologist*, IV, p. 3, September, 1896. In June 1900 a small flock of western evening grosbeaks was observed above Slippery Ford, drinking from a small stream which flowed across the road. At Echo on June 14, 1901 a pair were observed among the red firs on a meadow and seemed to be engaged in nest building, but their movements could not be traced. A sharp, musical note is given at intervals, it seeming to be the same note uttered by the birds while in the valley in winter.

Pinicola enucleator californica. California Pine Grosbeak. Seemingly a species of irregular distribution, not occurring below 6,000 or 7,000 feet. On June 9, 1900 Mr. Atkinson and I came across a beautiful male in a bog on the Forni meadow. The bird was very tame and was probably nesting in the vicinity. At this place the red firs hold numerous accumulations of needles about the size of a nest, which would render the location of a nest difficult excepting by watching the bird. Several other specimens were seen at this point and a male collected. On June 14, 1901 at Phillip's Station near the summit the keeper described the pine grosbeak to me and mentioned that three of the birds were quartered in the house when he moved up a few days before. A description of this subspecies and an account of its habits may be found in the "Auk" Vol. XIV, p. 182.

Carpodacus purpureus californicus. California Purple Finch. A common species up to at least as far as Slippery Ford. Specimens collected at Fyffe and Slippery Ford, several of the male birds being in the grayish plumage. This species must nest commonly in this region, although I know of no nests having been taken. Mr. Carriger located a nest at Fyffe in 1899 placed well out on a high limb of a yellow pine, the nest being concealed by the needles. It was impracticable to attempt to collect the set and no effort was made to do so. This and the following species are among the most charming songsters of the forest, their full, rich warble floating down from the tall pines in the early morning with exquisite sweetness.

[Collected July 24, 1900 at Glen Alpine. Rare on the east slope of the Sierras.—W. W. P.]

Carpodacus cassinii. Cassin Purple Finch. Common from Fyffe to the summit, having similar habits to the preceding species. Specimens were collected at various points along the road, many males being still in the gray plumage. On June 9, 1900 flocks of this species were found feeding along the edge of the snow on Pyramid Peak, and near the Fourteen-mile House a number were observed feeding in a clover field. A number were observed in Lake Valley near Tallac on June 15, 1901.

Carpodacus mexicanus frontalis. House Finch. A number were observed

about the poplar trees at the Five-mile House. This altitude perhaps marks the upper limit of its range as we did not observe it beyond this point in summer. Mr. Taylor collected an adult male at Meyer's Station October 12, 1901. This specimen appears paler and larger than birds from the interior valleys and coast district.

***Loxia curvirostra bendirei*.** Sierra Crossbill. On June 7, 1899 I shot a male crossbill at Fyffe; the bird was in high plumage but showed little evidence of nesting. The bird was sluggish in its movements, sitting on a low limb of a cedar tree where it was mistaken for a purple finch. On the following day a number were observed feeding in the tops of the pines, hanging head downward and uttering a sharp note. Mr. Taylor collected a female crossbill near Meyer's Station on Sept. 1, 1901.

[The crossbill is rare in summer in the Sierras. I have noted it on only two occasions, once Aug. 10, 1892 in hemlock timber near Pyramid Peak and again in 1900 at the head of Glen Alpine gorge.—W. W. P.]

***Leucosticte tephrocotis*.** Gray-crowned Leucosticte. This species was met with but once,—on June 10, 1900 when we climbed Pyramid Peak. The summit of the peak is a conglomerate mass of boulders and slabs of rock thrown together in chaotic order. About these rocks at the summit we noted two pair of leucostictes, one pair being secured. The contents of the stomach of the male bird were found to consist of the seeds of the white-bark pine, which grows in a dwarfed form up to perhaps within an eighth of a mile of the summit. The leucostictes appeared uneasy on account of our presence and after alighting for a moment on the rocks would sweep off in the strong wind, returning presently and frequently uttering their twittering note. This species undoubtedly nests among the rocks, and probably considerable patience would enable one to follow the female to her nest if the locality were visited at the beginning of the breeding season, which I should judge would be about the first of June.

[This species has been observed and collected by me each year, but I have never succeeded in finding its nesting place. Young just able to fly have been collected in late July. By the last of August leucostictes have begun to congregate in large flocks preparatory to a migration probably to the interior valleys of Nevada where they are often seen in large numbers in winter. Their chief food in late summer consists of the small seeds of a borage and a small *Eriogonum*. All the specimens examined contained more or less insect food, principally ants and small beetles. The birds delight in the broad snow-fields which cover the eastern slope of Pyramid Peak; here they may be seen searching for wind-blown insects and seeds. I have not seen the bird below 8000 feet—W. W. P.]

***Astragalinus tristis salicamans*.** Willow Goldfinch. Observed in suitable localities about Placerville by Mr. Chas. A. Swisler.

***Astragalinus psaltria*.** Arkansas Goldfinch. A common species in the mountain orchards at Fyffe and even higher up. I found a nest in a pear tree in June 1898 containing young, the parent bird allowing me to come within two feet of her nest with a camera. The species is probably common in suitable localities from Fyffe downward.

[In August, 1892, I shot a male Arkansas goldfinch flying over the very summit of Mt. Tallac. It was undoubtedly a straggler, for I have never since noted the species above 5000 feet.—W. W. P.]

***Astragalinus lawrencei*.** Lawrence Goldfinch. [A pair were observed at Placerville, early in June 1897, in a deserted orchard below the town. A pair were shot at Folsom in May 1897, in the outskirts of the town where they were seen several

times, apparently breeding.—W. W. P.]

Spinus pinus. Pine Siskin. On June 10, 1899 Mr. Carriger observed a flock flying about in the pines near the Fourteen-mile House. On June 9, 1900 at the base of Pyramid Peak a number were flying about the barn and corral of a dairy and seemed quite tame. Later in the day they were found in numbers feeding along the edge of the snow in company with the Cassin purple finches on the lower slopes of Pyramid Peak.

[Breeds commonly in a heavy forest of alpine hemlock at the head of Glen Alpine gorge. While no nests have been taken, the birds were heard at each visit, their shrill notes a very characteristic sound in the alpine woodland. Young have been taken in July and August. They were heard commonly on the slope of Pyramid Peak April 23, 1897, where snow covered the ground to a depth of ten or fifteen feet.—W. W. P.]

Chondestes grammacus strigatus. Western Lark Sparrow. Quite a common species at Fyffe in summer and observed as far up as the Fourteen-mile House. It frequents the clearings and mountain orchards, seldom entering the timber. Several nests were found in small cedars growing beside pasture fences.

Zonotrichia leucophrys. White-crowned Sparrow. A summer resident of the Sierras, being seldom found below 7,000 feet in this region. We first met it at the Forni meadow west of Pyramid Peak, where they were common June 10, 1900. The meadow, traversed by numerous little streams along which willows grew in thickets, offered an agreeable nesting site for the species but the bushes were just coming into leaf on this date, which probably delayed nest-building a week or more. Early in the morning the song of this sparrow came from all sides of the meadow, a pleasant though somewhat dolorous note. At a meadow west of Phillips Station, white-crowned sparrows were common, and indeed I have seldom found a place where mountain bird life of all kinds was so abundant. When we stopped for a few moments a medley of songs was in progress, to particularize upon any of which would be an invidious comparison. On June 11, 1900 while travelling over the ridge down to Echo postoffice I flushed a white-crowned sparrow from its nest and single egg in a patch of *Ceanothus cordulatus*. The nest was composed of very fine twigs with a lining of grasses and fine rootlets. The nest measured outside $4\frac{1}{2} \times 3\frac{1}{2}$ inches; depth one inch. The egg was of a light greenish-white color, softly marked with lavender. This species is one of the most interesting birds of its zone and my regret is that I have not been permitted to spend more time in its habitat.

Zonotrichia leucophrys gambeli. Intermediate Sparrow. I have in my collection four specimens of this race, collected by Mr. L. E. Taylor as follows: ♀ Glen Alpine Springs, Sept. 17; ♂ Grass Lake, Sept. 17; ♂ Glen Alpine Springs, Sept. 18; ♀ Meyers Station, Sept. 29, 1901. The taking of these intermediate sparrows in the breeding habitat of the preceding species would indicate that the latter had migrated before the middle of September, their places being in turn taken by *Z. l. gambeli* in its migration from the north.

Spizella socialis arizonæ. Western Chipping Sparrow. One of the commonest species, being abundant at Fyffe and observed up to the summit. In this region it seems to possess notes which are not ordinarily heard in the valley and in consequence it is sometimes collected with the idea that it may be other than a chipping sparrow. Its well-known trill is by far the commoner note and the species is found in almost every location. At Fyffe nest-building commences in May but fresh eggs have been found through June, perhaps second layings. My first nest was in the top of a very brushy black oak thirty feet up. No birds be-

ing about I speculated concerning the possible rarity of the nest and after a ludicrously hard climb was rewarded with a set of three eggs of this sparrow. Thereafter I sought easier nests, preferably those four or five feet up in cedar and pine saplings. Nesting dates for Fyffe are as follows: June 10, 1897, nest and four young in a low bush one foot from ground; June 10, 1898, four incubated eggs, nest in a small cedar three feet up, the eggs marked with brown; June 15, four fresh eggs, nest seven feet up in pine sapling beside road; June 6, 1901, nest with full fledged young in cedar sapling four feet up; June 7, nest and four fresh eggs three feet up in manzanita bush; June 7, nest and four fresh eggs ten feet up on drooping limb of black oak.

Spizella breweri. Brewer Sparrow. Several shot in the sage-brush near Meyer's Station by Wilfred H. Osgood in June, 1896. This region seems well adapted to the species.

Junco hyemalis thurberi. Thurber Junco. A common summer resident from 3,000 feet altitude to the summit. At Fyffe the species is not common, but increases in numbers as we ascend. There is the usual variation in its nesting dates, young and fresh eggs being often found at the same time in one locality. On June 17, 1896 I found a nest at Fyffe, containing half-grown young, the nest being concealed in the "mountain misery." Mr. Taylor found a nest in May, 1896 built in a depression in the side of an irrigating ditch, the nest and its surroundings being composed entirely of pine needles. On June 12, 1897 Mr. Carriker collected a nest and four fresh eggs at Fyffe, the nest being hidden among some brakes in the forest. June 11, 1898 young in the streaked plumage were shot at Fyffe. On June 10, 1900 a nest was found at about 3,000 feet, built in the pine needles on a bank, and contained four young. During the latter part of May of the present year Mr. Taylor found a nest at Fyffe, situated in a dense growth of brakes, containing fresh eggs. On June 14 while walking along the road near the summit a junco flushed from beneath my feet and a nest was found built in the side of a shallow ditch and concealed effectually by a tiny tamarack. It held four fresh eggs. The birds always exhibit alarm when their nesting domain is invaded and if the female be carefully watched the nest may be usually located within a short time.

Melospiza melodia montana. Mountain Song Sparrow.

[I have seen a song sparrow several times about Lake Tahoe, especially in the marshy tracts near Tallac, but none have been taken. In July 1898 a song sparrow which I took to be this form was shot at Lily Lake in Glen Alpine. The specimen unfortunately was destroyed. A nest containing four eggs taken with this specimen, was built among ferns under a fallen aspen. The nest was of usual *Melospiza* formation, and the eggs are not different from those of *M. m. heermanni*.—W. W. P.]

Melospiza lincolni. Lincoln Sparrow.

[Two specimens were taken at my camp on Silver Creek in Sept. 1896. They were probably migrants.—W. W. P.]

Passerella iliaca unalaschcensis. Townsend Fox Sparrow.

[Six or eight sparrows of this form were taken on Silver Creek, within three miles of Pyramid Peak in Sept 1896. One specimen was very light colored and referable to the fox sparrow, rather than to *P. i. unalaschcensis*.—W. W. P.]

Passerella iliaca megarhyncha. Thick-billed Sparrow. A common resident and sweet singer of the region, as abundant at Fyffe apparently as it is at higher altitudes. It is partial to the large tracts grown up to deer brush where, in the shade, it seeks seclusion, scratching for its food on the ground and only now and

then mounting some branch to pour forth its liquid song. At Fyffe I watched one on a cedar tree fifteen feet up and approached to the foot of the tree but the bird continued singing, unmindful of my presence, quite in contrast to the usual timid and secretive nature of this species. I have never discovered a nest of this bird although I have searched carefully a considerable area in which they were common. An old nest a foot up in a deer brush I ascribed to this species. On June 8, 1899 Mr. Carriger flushed a thick-billed sparrow from beneath a fallen tree at Fyffe. The bird ran quietly along the ground and disappeared, while the nest was found under the log, being a depression lined with grass and containing two eggs. No more were added to the set, which was collected with the parent a few days later. The thick-billed sparrow is one of the representative birds of the region, and withal one of its sweetest songsters.

Pipilo maculatus megalonyx. Spurred Towhee. A common bird of the region, occurring as far up at least as Echo. About Fyffe it seemed impossible to go into the deep woods, where bird life is usually scarce, without having a spurred towhee appear close at hand, uttering its catcall. On June 8, 1897 I found a nest containing three unfeathered young and one egg on a hillside under a bush. By far the prettiest nest found was on June 11 of the same year. The situation was a small clearing in the forest grown up to cedar saplings about two feet high. Beneath one of these reposed the nest and its three eggs, the lining of light grasses setting them off to good advantage. As in the valley this towhee does not nest on the ground entirely, for Mr. Taylor found a nest on June 12, 1897 containing two eggs, placed six feet up in a bush beside a ditch. It was composed of pine and spruce bark and lined with light yellowish grass. On June 6, 1899 Mr. Carriger collected a nest and four fresh eggs at Fyffe. The birds, despite their commonness, are very interesting to watch, and soon become neighborly if the observer will sit quietly in one place.

Oreospiza chlorura. Green-tailed Towhee. A very interesting species, occurring from Fyffe to the summit and also about Lake Valley. At Fyffe it was seen and heard occasionally in a large burnt area, keeping close to the dense growth of deer brush. On June 12, 1897 at Fyffe I found a nest $1\frac{1}{2}$ feet up in a *Ceanothus* bush, containing five fully fledged young, which scattered at my approach. Observed very commonly at Echo and Mr. Taylor sent me two specimens taken in September at Glen Alpine Springs.

Pipilo fuscus crissalis. California Towhee. On June 4, 1900 we observed this towhee at about 2,500 feet altitude in the manzanita brush on a hillside. This particular portion of the region resembles the Upper Sonoran more than the Transition zone and probably the species occurs commonly up to about this altitude.

Zamelodia melanocephala. Black-headed Grosbeak. A common summer resident up to at least 4,500 feet altitude. It probably extends higher up in suitable locations. The species is one of the most pleasing and constant songsters of the region, its rich whistle resounding through the woods from day-break to dusk. In the mountain orchards they prey upon certain fruits such as cherries and it requires vigilance to secure even a portion of the crop. The black-headed grosbeak nests almost entirely in the thick deer-brush, the average height of its nests being ten feet and the usual complement of eggs four. When the nest is disturbed the male bird appears almost instantly and much screeching follows, especially if the nest contains young. Numerous nests with young or fresh eggs have been found at Fyffe from June 1 to 10.

[I have never noticed this grosbeak in the Glen Alpine region, nor on the

west side of the mountains above 5000 feet. W. W. P.]

Cyanospiza amœna. Lazuli Bunting. This species is not uncommon on open hillsides and in the mountain orchards about Fyffe. On June 10, 1897, Mr. Beck collected a nest and four fresh eggs at Fyffe, the location being a bush about three feet high. Mr. Taylor and I noted the species in June, 1901, at about 5,000 feet altitude on Peavine ridge.

[A single specimen was shot in September, 1896, on Silver Creek, at about 7,000 feet. It seems rare above 4500 feet. W. W. P.]

Piranga ludoviciana. Louisiana Tanager. Common in the timber from 3000 feet to the summit. It feeds principally in the black oaks, where its gaudy plumage contrasts sharply with the light green leaves. Birds are seen through the forest with all shades of intensity in the red coloration. During June, 1901, the species seemed unusually abundant, traveling about the forest in flocks especially at Slippery Ford, though the cool summer may have been responsible for late mating and nest-building. At Fyffe on June 17, 1896, I found a nest 18 feet up on a horizontal pine limb, containing four incubated eggs. June 12, 1897, a nest built at the tip of a spruce limb 35 feet up was found containing young. June 16, 1898, a nest was located 50 feet up on a horizontal pine limb and contained young. On June 9 at Pacific and June 14 at Echo nest-building was just in progress. The black oak trees are frequently resorted to as nesting sites, the nests being always built on a horizontal limb.

[Noted to at least 9000 feet on both Pyramid Peak and Mt. Tallac, but is perhaps most abundant between 3000 and 6000 feet. In August the young are often met with in flocks of a dozen or more, feeding among the tamarack pines in company with several kinds of warblers, vireos and flycatchers. This gathering preliminary to migration has been noted each year that I spent at Silver Creek, and also in Glen Alpine. W. W. P.]

Progne subis hesperia. Western Martin. On June 4, 1900, a number of these martins were circling about the Cary House at Placerville, in the top brick-work of which they appeared to be nesting. They twittered sharply during their flight up and down the main business street of the town.

[Found nesting, in July 1896 in holes in a blasted pine stub some sixty feet from the ground. This was on the top of the Peavine ridge, about four miles northeast of Slippery Ford. None were shot, but the nearness of the birds and their notes made identification positive. W. W. P.]

Petrochelidon lunifrons. Cliff Swallow. Common about the barn at Fyffe on June 6, 1899. Nesting abundantly on the barn at Meyer's Station on June 15, 1891.

Hirundo erythrogaster. Barn Swallow. Observed at Fyffe with the preceding species on June 6, 1899. At the Brownell place above Slippery Ford a pair were nesting in the barn on June 11, while the species was common at Meyer's Station on June 15, 1901.

Tachycineta bicolor. Tree Swallow. Reported by Mr. Beck as nesting commonly in dead stubs at Biyou on the shore of Lake Tahoe, one nest found on June 2, 1896, being built in an old woodpecker's hole.

Tachycineta thalassina. Violet-green Swallow. [Common in August on the lakes in Glen Alpine, where some have been shot nearly every year. They appear usually on cloudy, rainy days and skim low over the water. The greater part seem to be young and they are probably on a migration. This year 1901, I saw numbers August 12, flying over the lakes in Desolation Valley, on the north side of Pyramid Peak, 8000 feet. W. W. P.]

Ampelis cedrorum. Cedar Waxwing. Recorded by Mr. Chas. A. Swisler at Placerville as an occasional winter visitant, going about in flocks of 25 or 30 birds.

Lanius ludovicianus gambeli. California Shrike. Observed by Mr. Chas. A. Swisler about Placerville.

Vireo gilvus. Warbling Vireo. This species is common in summer at Fyffe and was also heard on the Forni meadow at 7,500 feet altitude in June, 1900. One nest was found in a small black oak at Fyffe on June 15, 1897 containing eggs. This nest did not differ in anywise from nests found in the valley.

Vireo solitarius cassini. Cassin Vireo. The most common vireo of the Sierras, being usually found on the edge of clearings where it is partial to the black oaks, from which it principally obtains its food supply. The nests are suspended from drooping limbs of the oaks, and the sharp, expressive note of the parent bird frequently is uttered on the nest, the male responding; but more often the male bird will remain in or near the nesting tree while he sings. Four eggs is the usual complement, although I have twice found five eggs or young. The nests are invariably covered exteriorly with flakes of a white cocoon found in the woods, and the habit is as constant with this species as is the use of moss by Hutton vireo in its nest-building. Fresh eggs may be found at various altitudes through June, and are large for the size of the bird. Nesting dates at Fyffe are as follows: June 17, 1897, four incubated eggs, nest three feet up in black oak bush; June 20, nest with *five* half-grown young, five feet up in drooping black oak; June 9, a nest and four incubated eggs, suspended from black oak limb seven feet up; June 15, nest containing four fresh eggs, placed twelve feet up on drooping limb of black oak; June 6, 1900 a nest and *five* incubated eggs, ten feet up on drooping black oak limb.

[Rare in Glen Alpine except during the early migration of the young, when they are very common, being associated with warblers and often chipping sparrows and juncos. W. W. P.]

Vireo huttoni. Hutton Vireo. Heard commonly at Fyffe and several specimens shot during June. The pine region seems scarcely a suitable habitat for this species, but it evidently nests. It would be interesting to know whether or not the bird's custom of finishing the outside of its nest with moss as followed in the valley and foothills is here carried out. If so, the use of the brightly-colored moss (*Evernia*) would lend a handsome effect to the nest.

Helminthophila rubricapilla gutturalis. Calaveras Warbler. This was found to be a common species from Fyffe to above Echo, frequenting the deer-brush and hillsides of *Ceanothus cordulatus*, whence came its distinctive song. Although the species is far from rare in numbers, it appears that but comparatively few of its nests have been taken, but this is not strange when we consider the extent and nature of the country selected for nesting sites. It is usually by the merest chance that a nest is discovered, as successful a method as any being to beat through the "mountain misery" in the vicinity of where the male bird is found singing. Mr. Lyman Belding found several nests of this warbler at Big Trees farther south in the range. In 1896 Mr. Wilfred H. Osgood collected two sets of five eggs each, one at Fyffe and one near Slippery Ford. The taking of these two sets is described at length in *The Nidologist* (III, p. 140). On June 9, 1899 I flushed a Calaveras warbler from her nest in the tar-weed beneath a small cedar at Fyffe, at which date the nest held five half-grown young. Again at Fyffe on May 21, 1900 Mr. Taylor found a nest and five fresh eggs on the bank of a small ditch flowing out of the forest. The nest measured three inches outside diameter and was composed of weed-stems, grasses and a small quantity of bark. It was



PHOTO BY C. BARLOW

NEST AND EGGS OF CALAVERAS WARELER.

lined almost entirely with soap-root fiber, which appears to be the usual material employed. This nest and its situation is shown in the accompanying cut. On June 10, 1901 at Slippery Ford a nest was found built among an accumulation of dry black oak leaves beneath a deer-brush on the side of a gulch. It contained five eggs, two-thirds advanced in incubation at this date. As is shown by the above nesting records, five eggs constitute the usual set and the eggs are laid from May 20 into June, according to altitude. This warbler was observed commonly at Echo, where the hillsides echoed with its song.

[Rather common at Glen Alpine in the thickets of *Ceanothus cordulatus* and on the slopes of Mt. Tallac to at least 8000 feet. While the female is usually seen in shrubbery near the ground the male is more often seen and heard singing in trees of considerable size. W. W. P.]

Helminthophila celata lutescens. Lutescent Warbler. One specimen shot at Fyffe in June, 1897, but I should consider it an irregular summer visitant in the region. Mr. Taylor sent me two females shot near Glen Alpine Springs on September 17 and 18, 1901, doubtless migrants.

[Rather common in the willows and tamarack pines in Glen Alpine and on Silver Creek to at least 8000 feet in July and August. I have no evidence that it breeds. W. W. P.]

Dendroica æstiva. Yellow Warbler. At Fyffe this species occurs commonly, mingling with the other warblers in the black oaks. On June 16, 1898, while crawling through a patch of deer-brush in search of thick-billed sparrows' nests, I noticed a small nest three feet up in the top of a bush and it was presently claimed by a yellow warbler. The contents were two advanced and one infertile egg. The nest was composed of the usual grayish plant material and did not differ from nests found in the valley. Personally I have not observed this species above Fyffe.

Dendroica auduboni. Audubon Warbler. A fairly common species at Fyffe and upward to the summit. It vies with the hermit warbler in keeping close to the conifers, and the male in breeding plumage is a bird of rare beauty. All the nests I have found have been at comparatively low elevations in the trees, but the birds are frequently seen high up in the tall pines and firs, where it is likely that many of them nest. Audubon warbler, although not nominally a bird of the Transition zone, was observed most commonly at about 3,500 feet altitude below Fyffe where a dense growth of cedars had sprung up after a forest fire. This seemed the center of abundance and a number of pair were nesting within a small area. June 15, 1897, I found a nest 4½ feet up in a small cedar sapling, built next to the trunk. It contained a single egg and had evidently been deserted. The nest was generously lined with feathers, prominent among which were several of the plumed quail. On June 5, 1900 at 3,500 feet altitude a nest was found 20 feet up on a drooping pine limb, containing full-fledged young. The parent birds showed the direst distress, dragging themselves about on the ground in their attempts to mislead us. At the Forni meadow, altitude 7,500 feet, on June 10, 1900 I found a nest 15 feet up on a horizontal limb of a red fir, containing four fresh eggs. The outside of the nest was composed of plant stems, the inner section of bark strips and grass, with a lining of horsehair and feathers. The eggs were heavily marked for this species, being blotched confluent with umber and lilac. The nests of this warbler are larger than those of any of the other Sierra warblers, while the eggs have a distinctive coloration.

Dendroica nigrescens. Black-throated Gray Warbler. Common about Fyffe and observed as far up as Slippery Ford. Of all the warblers it seems to be the



PHOTO BY C. BARLOW.
COLLECTING A BLACK-THROATED GRAY WARBLER'S NEST.

most partial to the edge of clearings, where it carefully works over the deer-brush in search of food. Occasionally it is found in the higher conifers, and is perhaps the most active of the warblers. The black-throated gray warbler nests commonly about Fyffe, where the following nesting records were secured. A wide range of nesting sites is shown, the birds building from low bushes well up into the pines. June 15, 1897 a nest was noted seven feet up in the center of a manzanita bush containing four badly incubated eggs. In 1899 Mr. Carriger located a number of nests, the first being 12 feet up on a drooping limb of a pine. This was collected with its four fresh eggs, the circumstance being shown in the accompanying half-tone. The location was an ideal one, being a small clearing in the forest, with towering timber all about. June 7 Mr. Carriger found another nest, which the young were just leaving; on the same day a nest four feet up on a horizontal *Ceanothus* limb, containing three fresh eggs; another five feet up in the deer-brush with four fresh eggs. On June 9 Mr. Carriger followed a female warbler to her nest, which was placed on a horizontal pine limb, 52 feet above the ground and contained four eggs. The nests of this species resemble those of the yellow warbler more closely than the nests of any other species, being composed outwardly of gray plant material, with a lining of fibers and feathers. On June 6, 1900 Mr. Atkinson found a nest and four fresh eggs built in a small cedar sapling four feet up, while I found a nest with large young at Fyffe on June 6, 1901, built similarly in a cedar six feet from the ground.

***Dendroica townsendi*. Townsend Warbler.**

[A male was shot near Gilmore Lake, on the slope of Mt. Tallac, at 8500 feet early in August 1900, by Mr. Charles Merrill. The specimen was skinned by myself and is in my collection, but at present not available for the exact date. W. W. P.]

***Dendroica occidentalis*. Hermit Warbler.** This species has served to give Fyffe some little prominence, inasmuch as it has been studied with interest by numerous ornithologists who have made Fyffe their headquarters. I have found it nowhere so common as at Fyffe in summer, although scattering birds have been observed as far up as the summit. The hermit warbler is pre-eminently a frequenter of the conifers, although it feeds in the bushes and black oaks in common with other species. Its song is different from that of any other Sierra warbler and seems well represented by the words *zeegle zeegle zeegle zeek*, which I borrow from a letter written me by Mr. C. W. Bowles of Waldo, Oregon. Personally I have been unable to hit upon a combination of letters which represents the song nearly so well. At close range the song of the hermit warbler appears weak rather than otherwise, yet at Fyffe I was impressed with its penetration. In front of the station a corral of several acres reaches back to the border of the forest, and yet the song of this warbler could be heard with great distinctness as we sat on the porch. The bird will often mount to the higher branches of the conifers by successive hops, much after the manner of the blue-fronted jay. Up to the present time the eggs of the western warbler have remained rare in collections, and the few known sets have been taken within a small radius of Fyffe. Some years ago Mr. Chas. A. Allen found several nests of this warbler at Blue Canyon, but through various mishaps failed to secure a set of eggs. Major Bendire collected a set of warbler's eggs on the Des Chutes River in Idaho which he thought belonged to this species, but the parent bird was lost after being shot and I believe the identity was never cleared up. On June 10, 1896 Mr. R. H. Beck collected a nest and four eggs from a limb of a yellow pine 40 feet up, near the American River at 3,500 feet altitude. The nest was reached by means of a ladder carried a



PHOTO BY C. BARLOW.

NEST AND EGGS OF HERMIT WARBLER (2-3 NATURAL SIZE).

long distance up the mountain. (See *Nidologist*, IV, p. 79). On June 14, 1898 I had the good fortune to discover a nest opposite the station at Fyffe, it being built at the end of a small limb of yellow pine 45 feet up. The nest was located by searching at random and contained four eggs about one-fourth incubated. This set was described at length in *The Auk* (XVI, pp. 156-161). A half-tone of the nest and eggs is shown herewith. While walking through the timber at Fyffe on June 8, 1899 Mr. H. W. Carriger came upon a nest of this species but 2½ feet up in a cedar sapling. It contained four eggs, advanced in incubation. (See CONDOR I, pp. 59-60). A nest containing young about four days old found by Mr. Price's assistant at Fyffe on June 11, 1897, was placed twelve feet up near the top of a small cedar, next to the trunk and well concealed. Thus it is probable that Fyffe has afforded more nesting records of this species than has any other part of the state. In 1900 Mr. Taylor picked up a warbler's nest at the foot of a large fir tree from which it had evidently fallen. It undoubtedly belonged to this species, having the distinctive composition noted in all the nests observed. This is shown very well in the illustration, the inner lining of cedar bark and soap-root fiber being always present. Young birds but a few days out of the nest were observed on several occasions, they being of a light gray color, with two white wing bands.

[I have not found the hermit warbler where I thought it breeding above 6000 feet, but I have collected specimens both on Mt. Tallac and Pyramid Peak as high as 9000 feet. The adults are very rare during June and July in the neighborhood of my camp at Silver Creek, but late in July and early in August a migration of the young birds of the year takes place and the species is very abundant everywhere in the tamaracks from about 6000 feet to 8000 feet. A hundred or more may be counted in an hour's walk at my camp, 7000 feet, on Silver Creek. They are very silent, uttering now and then a "cheep," and always busy searching among the leaves and cones for insects. Among some fifty collected in the first week in August, 1896, there were only two or three adults. The young males have the most coloring, but they in no way approach adult plumage. These great flights of the hermit warbler are intermingled with other species, Hammond flycatcher, Calaveras and lutescent warblers, Cassin vireo, and sometimes Louisiana tanagers and red-breasted nuthatches. Each year the flight has been noted, it comes without warning of storm or wind, and after a few days disappears to be seen no more. W. W. P.]

***Geothlypis tolmiei*.** Macgillivray Warbler. Found commonly about Fyffe and as far up as Echo, always frequenting the brushy hillsides where grows the several species of *Ceanothus*. At Fyffe the species seemed very common in what is known as the "burnt district,"—an area which was swept by a forest fire some years ago and which has since grown up thickly to deer-brush and cedars. On June 9, 1897 a brood of young were travelling about in the brush with their parents. A day later Mr. Beck took a nest and four fresh eggs one foot up in a small cedar. On June 14, 1901 I collected two male birds near Echo where they were found in the prickly *Ceanothus cordulatus*, in which they no doubt nest. On the whole Macgillivray warbler occupies territory of the same nature as does the Calaveras warbler in this region, the two often being found together in the brush.

[Rather common up to 8000 feet in both the Silver Creek region and on Mt. Tallac. W. W. P.]

***Geothlypis trichas occidentalis*.** Western Yellowthroat. [I have seen a yellow-

throat referable to this species in the marshes about Tallac, but no specimens have been secured. I have never seen the yellowthroat either on Silver Creek or in Glen Alpine. W. W. P.]

Wilsonia pusilla pileolata. Pileolated Warbler. On June 14, 1901 I observed a pair of these warblers on a meadow near the summit, altitude about 7500 feet. The birds were prospecting about a willow patch, where they would probably have nested, had I not collected the female. Mr. Taylor collected a male at Grass Lake September 17. I have not observed this species at the lower altitudes of the pine belt.

[Common in Glen Alpine and on Silver Creek, where specimens have been collected each year. A nest containing five eggs was collected in Glen Alpine at Lily Lake in July 1898. The nest was placed on the ground, under a fallen aspen. The female was shot as she left the nest. W. W. P.]

Cinclus mexicanus. American Dipper. Mr. Taylor observed it above Echo June 16, and it doubtless occurs commonly along the American River where there are numerous wild situations admirably adapted to its occupancy.

[Common wherever there are streams to at least 9000 feet. They are abundant on Silver Creek and in Glen Alpine. Young have been seen as early as July 15 at Lily Lake, Glen Alpine. W. W. P.]

Catherpes mexicanus punctulatus. Dotted Canyon Wren. During May, 1900 Mr. Taylor found a nest of this wren built in a rift of a cliff on the American River north of Fyffe. The nest contained young and an infertile egg.

[Two specimens were shot at Slippery Ford about June 15, 1898 in the Sugar Loaf cliffs. None have been seen higher in the mountains than this point. W. W. P.]

Thryomanes bewicki spilurus. Vigors Wren. Heard occasionally at Fyffe and a specimen shot in the deer brush on June 7, 1899. Its song resembles somewhat that of the thick-billed sparrow.

Troglodytes aedon parkmani. Parkman Wren.

[A pair were shot early in August 1900 in a brushy burned area on the south side of Mt. Tallac at 8000 feet. Others have been seen in Glen Alpine. W. W. P.]

Anorthura hiemalis pacifica. Western Winter Wren. Found not uncommonly along the dark canyon streams. It was seen quite often in Weber canyon at Fyffe and on June 9, 1901 one was heard singing in its own exquisite manner in a gulch near Pacific. July 12, 1898 Mr. Taylor collected a nest and five eggs from the side of a "prospect hole." The location was a dry one for this species to select, but the nest was a beautiful structure of moss, built to suit the shape and size of the cavity. When removed it resembled a miniature ouzel's nest more than anything else. The eggs were partially dried up, which accounts for their being found at this late date.

Certhia familiaris zelotes. Sierra Creeper. Observed from Fyffe upward to the summit. June 8 an adult male and an immature bird were taken at Fyffe, and a nest was found beneath the bark of a dead pine about 20 feet up. It could not be reached, but doubtless contained young at this date. On April 30, 1898 Mr. Taylor found a nest and five eggs at Fyffe, the nest being built in a slit of a pine stub six inches back from the entrance, and almost wholly composed of strips of cedar bark with a few feathers intermingled. I have compared specimens of this race with skins from Sitka with the result that very little, if any, difference appears to exist between the two.

Sitta carolinensis aculeata. Slender-billed Nuthatch. I met this nuthatch at a meadow near the summit on June 14, 1901 when one was observed on a dead stub, but I failed to secure it. Mr. Taylor collected an immature male at Meyer's

Station Aug. 12, 1901.

[Common above 6000 feet on both sides of the range, at Silver Creek and about Glen Alpine. W. W. P.]

Sitta canadensis. Red-breasted Nuthatch. Heard and seen frequently at Fyffe and specimens taken. [Common in the migrations at Silver Creek. May breed there. W. W. P.]

Sitta pygmæa. Pygmy Nuthatch. [A family of pygmy nuthatches were noted on Silver Creek, 7000 feet in August 1896 and several were taken. It is possible they were migrating. W. W. P.]

Parus inornatus. Plain Titmouse. Recorded by Chas. A. Swisler in the vicinity of Placerville.

Parus gambeli. Mountain Chickadee. A common species from below Fyffe up to the summit and on both slopes of the range. The species nests early, usually selecting dead pine and spruce stubs as nesting sites. June 11, 1898 a nest was found at Fyffe with nine young about to fly; the nest was built in a cavity in the top of a pine stub, about three feet from the ground and was composed of a large quantity of bark strips and animal fur. June 8, 1899 Mr. Carriger found a nest four feet up in a stub, containing seven small young. At the Forni meadow on June 10, 1900 a nest was found built on a joist behind a base-board, the space of 10x7 inches being filled with a mat of hair and fur, in the center of which was a cavity holding eight eggs, slightly incubated. At Fyffe June 6, 1901 a nest with eight grown young was found eight feet up in a burnt stub, while at Slippery Ford on June 10 a nest six feet up in the top of a blackoak snag contained young. The real song of this chickadee much resembles that of the golden-crowned sparrow.

Chamæa fasciata henshawi. Pallid Wren-Tit. On June 10, 1899 the familiar song of a wren-tit was heard in the chaparral near the Five-mile House. It probably occurs thence downward in suitable localities.

Psaltriparus minimus californicus. California Bush-Tit. Noted quite often about Fyffe where two nests were found. The first was found on June 12, 1897 and was suspended from a small cedar eight feet up. The seven eggs were far advanced in incubation. June 14, 1898 I found a nest in a manzanita bush, containing six slightly incubated eggs. The nest was something of a curiosity having an entrance on top and another two-thirds of the way down on the opposite side, both being well rounded. The nest was lined warmly with feathers, among which were recognized those of the plumed quail and black-headed grosbeak.

Regulus satrapa olivaceus. Western Golden-crowned Kinglet. Although this kinglet is nominally a bird of the higher zones it undoubtedly breeds at Fyffe, altitude 3,700 feet. On June 8 of the present year Mr. Taylor and I observed adult birds and apparently a brood of young flying about in a thick young spruce growth in the forest. An adult male and a juvenile were collected. Mr. Taylor collected a female at Glen Alpine Sept. 19, 1901. [I have never collected this form in summer at either Silver Creek or Glen Alpine. In 1896, I found it common at Six-mile House. W. W. P.]

Regulus calendula. Ruby-crowned Kinglet. Mr. Taylor took an adult female at Glen Alpine Sept. 19, 1901.

[Distinctly a bird of the Hudsonian zone. Breeds commonly in the forests of alpine hemlock on the slopes of Pyramid Peak and at the head of Glen Alpine. The male has a song of wonderful sweetness and strength. It without doubt breeds in these forests as I have seen the birds with food in their bills flying into a tall hemlock where a nest probably was concealed. W. W. P.]

Poliophtila cærulea obscura. Western Gnatcatcher. Observed June 17, 1896 several miles west of Placerville. Also at Fyffe a few days later where a pair

were observed flitting about some manzanita bushes.

Myadestes townsendi. Townsend Solitaire. One shot at Fyffe June 20, 1896 by W. H. Osgood. Mr. Beck found a nest built on the ground in the shell of burnt tree near Echo, containing three eggs. Mr. Taylor sent me four specimens taken at Glen Alpine Springs in September and one from Meyer's Station Oct 7, 1901.

Hylocichla ustulata. Russet-backed Thrush. Observed to be fairly common along the wooded streams from Fyffe to Riverton. June 11, 1898 a number were heard singing in the maples bordering a small stream at Fyffe. On June 9, 1901 several were heard in a canyon between Pacific and Riverton.

Hylocichla aonalaschkæ. Dwarf Hermit Thrush. Observed at Placerville by Mr. C. A. Swisler during February, 1901, when a single bird was a visitor to his yard for about two weeks. An occasional winter visitant.

Hylocichla aonalaschkæ sequoiensis. Big Tree Thrush. I first heard the song of this thrush about dusk in the tamarack timber west of Pyramid Peak and found it present in considerable numbers on a meadow near the summit of the stage road. The border of the meadow was thickly grown up with second-growth tamaracks, from the cover of which the thrushes sang with rare melody. I regretted that rapid travel to our day's destination prevented my sitting and listening to the delicious music which seemed to pour from all sides. Mr. Taylor collected an immature specimen of this thrush at Glen Alpine Springs on Sept. 16, 1901. In June, 1896 Mr. Beck collected a nest of the Big Tree thrush above Echo, the nest being built 40 feet up in a pine tree, quite in contrast to the usual nesting site. The nest held four eggs. [Common wherever there is timber, and damp thickets of willow and alder above 6000 feet.—W. W. P.]

Merula migratoria propinqua. Western Robin. One of the noisy and enlivening birds of the entire region, nesting commonly at all altitudes. It is found in every mountain orchard, where the nests are built in apple or other fruit trees. More often pine and cedar saplings are selected as nesting sites, the nests being often placed in the tops of the trees, resting on a horizontal branch next to the trunk. They are composed outwardly of mud and grass and lined with grasses; the usual complement of eggs is four.

Hesperocichla nævia. During the winter of 1900 Mr. Taylor sent me a varied thrush, which he had collected from a flock in the pines. [Observed at Slippery Ford, April 20, 1897. Collected on Silver Creek, Oct. 1, 1896.—W. W. P.]

Sialia mexicana occidentalis. Western Bluebird. Common as far up at least as Fyffe. In 1898 a pair nested in a tall burnt stub at Fyffe, the cavity being near the top of the tree, while a pair of white-headed woodpeckers occupied a hole lower down. The bluebirds have returned to the same stub in subsequent years.

Sialia arctica. Mountain Bluebird. Observed from 5,500 feet upward. Mr. Atkinson found a nest at 9,200 feet altitude on Pyramid Peak, June 10, 1900. The nest was built in a hole of a stub, about 15 feet from the ground, and contained one egg. At Echo on June 14, 1901 a pair were flying about numerous stubs on a meadow, where they were doubtless nesting. Observed commonly about Meyer's Station, where Mr. Taylor collected several in September.

[In June 1896 I collected a male and female and several young of this form a mile or two above the Six-mile House, and a male at Fyffe. This is the lowest altitude at which I have noted them. The arctic bluebird is one of the characteristic species of the great glacier-swept basins,—Rockbound and Desolation Valleys, nesting in the dwarfed tamarack pines, using holes excavated apparently by Williamson sapsucker. W. W. P.]

Passer domesticus. English Sparrow. Recorded at Placerville by Mr. Chas. A. Swisler.